

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Inquiry Concerning the Deployment of Advanced	)	GN Docket No. 09-137
Telecommunications Capability to All Americans	)	
In a Reasonable and Timely Fashion, and Possible	)	
Steps to Accelerate Such Deployment Pursuant to	)	
Section 706 of the Telecommunications Act of	)	
1996, as Amended by the Broadband Data	)	
Improvement Act	)	
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51

**COMMENTS OF SPRINT NEXTEL CORPORATION**

Sprint Nextel Corporation (“Sprint”) hereby respectfully submits its comments in response to the Notice of Inquiry (NOI), released on August 7, 2009 in the above-captioned proceedings (FCC 09-65), on the extent to which broadband is being deployed to all Americans in a reasonable and timely fashion. Sprint addresses briefly below three topics raised in this NOI: the relevance of special access/middle mile to broadband definition, deployment and use; the deployment of 4G technologies such as WiMAX; and broadband availability to elementary and secondary school students.

**1. Relevance of Special Access/Middle Mile to Broadband Definition, Deployment and Use**

The Commission has asked “to what extent should middle mile and special access facilities and services be included in the definition of broadband,” and how “the availability of middle mile and special access facilities and services affect the delivery of broadband services to end users” (NOI, para. 39).

Sprint applauds the Commission's recognition that middle mile and special access facilities are crucial elements in the deployment and use of broadband services.<sup>1</sup> Special access/middle mile facilities include not only the portion of the circuit that terminates at an Internet backbone network; they also include the dedicated facilities that link a mobile carrier's cell sites to its mobile switching centers; that link a rural LEC's wire center to a BOC wire center; and that link a business customer to its broadband service provider. Furthermore, the special access facilities used for broadband services include a range of capacity levels, speeds and technologies, from TDM-based DS1 to packet-based Ethernet circuits. And, because all broadband traffic does not necessarily traverse the public Internet (a high volume of traffic may also be destined for companies' private Intranet networks), the Commission must take care not to define broadband as including only those services that terminate to "the Internet."

The Commission's concern that lack of reasonable access to special access facilities may impede broadband deployment and use is well-founded. Without access to bottleneck special access facilities at reasonable rates, terms and conditions, independent broadband service providers, ISPs, and large end users who rely upon these facilities will inevitably experience suppressed demand. Carriers cannot afford to deploy (and, ultimately, their customers cannot afford to purchase) the same quantity and quality of

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<sup>1</sup> As Sprint recommended in its August 31, 2009 comments in this and related proceedings (GN Docket Nos. 09-45, 09-51, and 09-137), the Commission should define "broadband" using a pragmatic, user-driven framework. Broadband service should include the "always on" immediate accessibility of information to end users through a common addressing system. Under such a framework, the special access facilities used by a broadband service provider are an important input element to, rather than the primary focus of, the broadband service.

broadband services as would occur if input prices were set at just and reasonable levels and if ready and seamless migration to competitive access facilities were possible.

Sprint has demonstrated in detail the extent to which incumbent LECs (AT&T and Verizon in particular) dominate the provision of special access facilities, and how these incumbent LECs take advantage of their market power to charge excessive rates to their captive access customers.<sup>2</sup> We do not re-duplicate that discussion here. However, the excessively priced or onerously restrictive special access services which characterize today's special access market clearly constitute "specific barriers to entry that are inhibiting broadband investment" (NOI, para. 65).

It is self-evident that if independent entities (*i.e.*, companies not affiliated with an incumbent LEC that has market power in the provision of special access services) are forced to pay supra-competitive rates for this essential input, their cash will go towards paying their monopoly suppliers instead of being invested in their own broadband network and service offerings. If onerous incumbent LEC terms and conditions prevent or inhibit carriers such as Sprint from purchasing special access services from competitive providers (where such competitive alternatives are even available), competitive carriers' broadband investments are suppressed as well. Deploying broadband networks involves significant risk and expense, and competitive LECs will be cautious about investing in facilities unless there is a reasonable likelihood that they will be able to attract enough customers to recoup their investment.

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<sup>2</sup> See, *e.g.*, comments of Sprint Nextel filed June 8, 2009, in GN Docket No. 09-51, pp. 8-34, and other Sprint filings referenced therein.

The Commission has explicitly retained Title II common carrier regulation over all TDM-based, DS1 and DS3 services, as well as over certain packet-switched and optical transmission services provided by AT&T and other incumbent LECs for which forbearance of dominant carrier pricing regulation has been granted.<sup>3</sup> Among other things, Title II regulation requires that the incumbent LECs' prices be just and reasonable and not unreasonably discriminatory. Thus, the Commission has undisputed authority to address special access rates and practices, and there should be no dispute that the Commission *should* address rates and practices that constitute barriers to competitive entry and expansion or that inhibit broadband infrastructure investment.<sup>4</sup>

Given its authority under Title II and specifically under Section 201(b), the Commission can and should adopt the following reforms in order to help ensure just and reasonable interstate special access rates:

- revise price cap rules, at a minimum by re-introducing a productivity adjustment factor and bringing back under price cap regulation certain special access services that were prematurely deregulated;
- adopt new pricing flexibility triggers to help ensure that such flexibility is granted only where actual and viable competition exists; and
- mandate the removal of anti-competitive terms and conditions which impose unreasonable penalties on customers who wish to allocate a portion of their business to a competitive service provider.

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<sup>3</sup> See, e.g., *Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Its Broadband Services*; *Petition of BellSouth Corporation for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Its Broadband Services*, 22 FCC Rcd 18705, 18707 (para. 2) and 18713 (para. 12) (2007).

<sup>4</sup> The NOI requests comments on “what authority...the Commission ha[s] to remove any such barriers” to entry (para. 65).

## 2. Trends in Developing Technologies

In the instant NOI, the Commission has sought comment on trends in developing technologies, including information on “what new network or other technologies, such as WiMAX and LTE, are currently being deployed” (para. 50). Sprint, through its \$7.4 billion investment in Clearwire Corp.,<sup>5</sup> is proceeding aggressively with its deployment of 4G WiMAX technology. Sprint currently offers WiMAX mobile broadband service throughout the Atlanta, Portland, Las Vegas and Baltimore metropolitan areas. By year-end 2009, we expect to offer WiMAX in the Dallas/Fort Worth, Chicago, Philadelphia, Honolulu, Seattle, and Charlotte markets, meaning that 4G service will be available in markets covering 30 million people. In 2010, we expect to expand our WiMAX mobile broadband service to the New York, Boston, Washington DC, Houston, and San Francisco markets, resulting in 4G coverage to as many as 120 million people nationwide. Consistent with the growing WiMAX footprint, Sprint expects to expand its hardware lineup to include several 4G-capable units in the near future, including a 3G/4G USB modem, a 4G data card, a 4G phone, and embedded laptops.

The Clearwire WiMAX network will use self-provisioned microwave backhaul to handle the high-bandwidth requirements associated with 4G applications to the maximum extent possible. However, particularly in secondary and tertiary markets where microwave backhaul is not economic, DS1 and DS3 special access facilities obtained from incumbent LECs are likely to continue to be the only feasible backhaul option

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<sup>5</sup> The implied equity valuation of the 2.5 Ghz spectrum and WiMAX-related assets which Sprint contributed to Clearwire was \$7.4 billion (*Sprint and Clearwire to Combine WiMAX Businesses, Creating a New Mobile Broadband Company*, news release dated May 7, 2008).

available.<sup>6</sup> Thus, even in a 4G world, the Commission cannot lose sight of the statutory imperative that DS1 and DS3 rates be just and reasonable.

While emerging WiMAX-based broadband services offer dazzling opportunities, the Commission must also bear in mind that existing 3G and even 2G-based networks will continue to be the operational workhorses for tens of millions of subscribers. Indeed, broadband data applications over 3G networks continue to increase dramatically, thanks in large measure to the popularity of smart devices such as the Palm Pre, Blackberries and iPhones. Sprint currently actively markets 45 CDMA handsets and aircards, 37 of which offer high-speed (EVDO-level or higher) broadband capabilities, and Sprint subscribers are using these capabilities more and more. For example, data revenue per user continues to increase steadily: for the second quarter of 2009, average data revenue per CDMA subscriber was \$18.50, up 23% from year-earlier levels and up 45% from the second quarter of 2007.

These workhorse 3G networks currently, and for the foreseeable future, will continue to rely heavily on DS-1 and DS-3 access facilities to link hundreds of thousands of carrier cell sites and enterprise customer locations to broadband service providers' backbone networks. As one industry publication noted, "[t]hough operators look forward towards a new IP data-driven future, most operators will still rely on legacy 2G/3G networks for years to come, meaning backhaul solutions that look forward to 4G must also support existing access technologies, namely native support for TDM circuit

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<sup>6</sup> In smaller and rural markets, it is not at all clear that incumbent LECs will find it economic to deploy packet-based facilities such as Ethernet. However, in markets where Ethernet facilities are available, the Commission must carefully consider what steps it can take to ensure that such deregulated services are available on just and reasonable terms.

traffic, without imposing substantial cost or complexity on operators.”<sup>7</sup> Given that tens of millions of customers will continue to rely for years upon existing 2G and 3G networks, with their underlying DS1 and DS3 facilities, the public interest demands that the Commission direct its attention to market failures in the DS1 and DS3 market, and to adopt appropriate reforms expeditiously.

### **3. Broadband Availability in K-12 Schools**

The Commission has sought comment regarding broadband availability to students that attend elementary and secondary schools (NOI, para. 55). Sprint is active in the education market, both as a participant in the E-rate program (K-12 schools and libraries) and in the higher education market. We provide mobile broadband service to education customers in 97 geographic markets using approximately 39,000 broadband-capable handsets and aircards. It has been Sprint’s experience that K-12 customers have been eager to embrace mobile broadband technology to foster learning and enhance the productivity of teachers, administrators, and support staff, resulting in a double-digit increase in demand for broadband-capable devices in the first several months of 2009 alone.

The E-rate program has been instrumental in fostering high-speed Internet access to K-12 schools and libraries. Between 1998-2007, \$1.6 billion in federal universal service support was disbursed to schools and libraries for recurring (Priority 1) Internet

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<sup>7</sup> Joe Schrami, “*To 4G or not to 4G: Supporting exponential mobile traffic growth,*” *Telecom Magazine*, August 25, 2009, <[www.telecommagazine.com/techzones/wireless/article.asp?HH\\_ID=AR\\_5587](http://www.telecommagazine.com/techzones/wireless/article.asp?HH_ID=AR_5587)>.

access services of all types.<sup>8</sup> In 2008, \$269.4 million were committed to schools and libraries for recurring Internet access service,<sup>9</sup> most of which presumably was for high-speed (rather than dial-up) access. Within the E-rate program, the Commission could help further expand use of mobile broadband by eligible school and library patrons by clarifying that mobile broadband services are eligible for E-rate support so long as they are used by eligible entities for eligible purposes, regardless of the physical location (an increasingly irrelevant concept in a mobile world) of the user.<sup>10</sup> This clarification would allow an eligible student, teacher, or school administrator to engage in legitimate school-related activities using a mobile broadband connection that is supported using E-rate funds, anywhere, anytime – not only when he or she is sitting in a classroom.

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<sup>8</sup> Universal Service Monitoring Report, CC Docket No 98-202, 2008, Table 4.1 (reflects data received through June 2008).

<sup>9</sup> See <[www.usac.org/about/universal-service/fund-facts-charts/sl-FY2008-statistics.pdf](http://www.usac.org/about/universal-service/fund-facts-charts/sl-FY2008-statistics.pdf)>.

<sup>10</sup> See comments filed by Sprint in CC Docket No. 02-6 on June 19, 2009; *see also* related *ex parte* letter from Sprint to Marlene Dortch, FCC Secretary, dated July 14, 2009.



Respectfully submitted,

**SPRINT NEXTEL CORPORATION**

A handwritten signature in dark ink, appearing to read "Charles W. McKee", is written over a horizontal line.

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## CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Comments of Sprint Nextel Corp. was filed electronically or via US Mail on this 4th day of September, 2009 to the parties listed below.

  
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